

We claim:

1. An improved apparatus for viewing donor corneas, comprising:
  - a. a means for holding a cornea;
  - b. at least one diffused light source, positioned anteriorly to the cornea,  
5 where said diffused light is capable of illuminating said cornea, as seen from the posterior side of said cornea;
  - c. a viewing means, capable of receiving the view of the cornea from the posterior side of said cornea, where the view of the cornea is obtained using said diffused light source.
- 10 2. An improved apparatus for viewing donor corneas, as recited in claim 1, in which the diffused light source uses a filter means positioned between the light emitting point, and the cornea.
3. An improved apparatus for viewing donor corneas, as recited in claim 1, in which the diffused light source is positioned in direct line of sight with the cornea and  
15 viewing means.
4. An improved apparatus for viewing donor corneas, as recited in claim 1, in which the diffused light sources comprise at least 2 light sources, which are positioned at different angles in relation to the posterior side of said cornea.
5. An improved apparatus for viewing donor corneas, as recited in claim 1, in which  
20 the viewing means comprises digital video camera, capable of receiving the diffused light and creating an electronic image.

6. An improved apparatus for viewing donor corneas, as recited in claim 1, in which the viewing means comprises a monitor, that receives an electronic image of the view of the cornea.

7. An improved apparatus for viewing donor corneas, as recited in claim 1, in which the diffused light sources are further combined with a slit lamp, where the diffused light sources are positioned anteriorly to the cornea, while the slit lamp is positioned anteriorly to the cornea.

8. An improved apparatus for viewing donor corneas, comprising:

a. a means for holding a cornea;

b. at least one diffused light source, positioned anteriorly to the cornea, where said diffused light is capable of illuminating said cornea, as seen from the posterior side of said cornea;

c. a microscope means to receive the view of the cornea, with an incorporated digital video camera, where said digital video camera is able to record and transmit the image of the cornea to a monitor.

9. An improved apparatus for viewing donor corneas, as recited in claim 8, in which the diffused light source uses a filter means positioned between the light emitting point, and the cornea.

10. An improved apparatus for viewing donor corneas, as recited in claim 8, in which the diffused light source is positioned in direct line of sight with the cornea and viewing means.

11. An improved apparatus for viewing donor corneas, as recited in claim 8, in which the diffused light sources comprise at least 2 light sources, which are positioned at different angles in relation to the posterior side of said cornea.
12. An improved apparatus for viewing donor corneas, as recited in claim 8, in which the diffused light sources are further combined with a slit lamp, where the diffused light sources are positioned anteriorly to the cornea, while the slit lamp is positioned anteriorly to the cornea.
13. A method of examining donor corneas, comprising the following steps:
- a. placing a diffused light source on the posterior side of the cornea being examined, with the diffused light emitted from said source moves through the cornea from the posterior to the anterior side;
  - b. placing a viewing means on the anterior side of the cornea, where said viewing means is capable of receiving an image of the cornea, using the diffused light.
14. A method of examining donor corneas, as recited in claim 13, in which the diffused light source is placed directly behind the cornea, so that it is in a line of sight with the cornea and viewing means.
15. A method of examining donor corneas, as recited in claim 13, in which at least two diffused light sources are placed posteriorly to the cornea, so that each light source projects its emitted diffused light to the posterior side of the cornea at an angle different from the other light source.

16. A method of examining donor corneas, as recited in claim 13, in which the diffused light source uses a filter means to diffuse the light.

17. A method of examining donor corneas, as recited in claim 13, in which the light source uses a reflective surface that diffused the light upon reflection.

5 18. A method of examining donor corneas, as recited in claim 13, comprising the additional step of placing a slit lamp on the anterior side of the cornea, and projecting a slit lamp beam onto the posterior side of the cornea, along with the diffused light from the posterior side of the cornea.

10 19. A method of examining donor corneas, as recited in claim 13, in which the image received in the viewing means further comprises the creation of a digital image, and transmitting said image to a monitor.

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